

Preface

This treatise is intended for the advanced student or professional worker in the plant sciences. It is directed to the biochemist who desires information in areas of biochemistry that are unique to plants, for example, cell wall matters, photosynthesis, or nitrogen fixation, or who is interested in the degree to which plants share biochemical pathways found in other organisms. This work will also be valuable to plant biologists in general. Biochemistry can and does contribute to the understanding and solution of the problems involved in many of the more specialized aspects of plant biology—taxonomy, morphology, ecology, horticulture, agronomy, phytopathology, to name a few. We believe this book can help students and research workers in these diverse fields by providing them with a ready source of biochemical information directly applicable to plants. Finally, we feel that it can be used successfully as a text in plant biochemistry courses. The student in such a course would need some background in organic chemistry, but previous study of biochemistry would not necessarily be required.

We have tried to present each topic comprehensively in the sense that we have started with general principles and ended with the current state of the subject. We hope that the reader, after having studied a topic in this book, will find himself qualified to go into his laboratory and start investigations possessing the latest knowledge available in that field. To assist the research worker we have included references pertinent to the original literature; to assist the student we have also included suggestions for more general reading on each topic. The student without previous knowledge of biochemistry will find such reading desirable—perhaps necessary.

In the eleven years that have elapsed since the publication of the first edition of "Plant Biochemistry" there have been, of course, advances in all areas of this subject. Some are due to the increasing emphasis of plant physiology on plant biochemistry as a means of better understand-

ing the individual physiological processes; others to the understanding of subjects not comprehended eleven years ago. Examples of the latter can be found throughout the volume.

We trust this edition will prove useful to its readers. We thank our colleagues for their contributions and intellectual support of this volume. We are also indebted to the staff of Academic Press for their continuous and skillful help in the preparation of this work.

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